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SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

	Application No.	Applicant(s)
Office Action Summary	09/888,316	VOLPERT, THOMAS R.
	Examiner	Art Unit	
	Matthew T. Henning	2131	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>07 November 2006</u>.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1,3,5-10,21-23 and 25-62</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1,3,5-10,21-23 and 25-62</u> is/are rejected.

7)☒ Claim(s) <u>10,23,32,33,40,45-47,55,60 and 61</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>04 August 2005</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

       1.☐ Certified copies of the priority documents have been received.

       2.☐ Certified copies of the priority documents have been received in Application No. _____.

       3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

1   This action is in response to the communication filed on 11/7/2006.

2   **DETAILED ACTION**

3   *Continued Examination Under 37 CFR 1.114*

4   A request for continued examination under 37 CFR 1.114, including the fee set forth in

5   37 CFR 1.17(e), was filed in this application after final rejection. Since this application is

6   eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e)

7   has been timely paid, the finality of the previous Office action has been withdrawn pursuant to

8   37 CFR 1.114. Applicant's submission filed on 11/7/2006 has been entered.

9   *Response to Arguments*

10   Applicant's arguments filed 11/7/2006 have been fully considered but are moot in view of

11   the new grounds of rejection presented below.

12   All objections and rejections not set forth below have been withdrawn.

13   *Claim Objections*

14   Claims 10, 32-33, 40, 45-47, 55, and 60-61 are objected to under 37 CFR 1.75(c), as

15   being of improper dependent form for failing to further limit the subject matter of a previous

16   claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in

17   proper dependent form, or rewrite the claim(s) in independent form. All of these claims recite

18   limitations that broadens its parent claim. These claims each require that the control code be

19   generated based on frequency analysis of the input data string, while the independent claims

20   recite that the control code is generated independent of specific characteristics of the input data

21   string. As such, the dependent claims broaden this particular portion of the claim language.

22

1   Claim 23 is objected to because of the following informalities: Lines 2-3 recite the

2   limitation "the input data string" which lacks antecedent basis in the claim. The examiner will

3   assume this was meant to read "an input data string".

4

5   Appropriate correction is required.

6   *Claim Rejections - 35 USC § 103*

7   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

8   obviousness rejections set forth in this Office action:

9   (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
10   section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
11   such that the subject matter as a whole would have been obvious at the time the invention was made to a person
12   having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
13   manner in which the invention was made.
14

15   Claims 1, 3, 5, 8-10, 21-23, 25-26, 29-40, 44-55, and 59-62 are rejected under 35

16   U.S.C. 103(a) as being unpatentable over De Maine et al. (US Patent Number 3,656,178)

17   hereinafter referred to as De Maine, and further in view of Cellier et al. (US Patent Number

18   5,884,269) hereinafter referred to as Cellier, and further in view of Witten et al. ("On the Privacy

19   Afforded by Adaptive Text Compression) hereinafter referred to as Witten.

20   Regarding claim 1, De Maine disclosed a method of encrypting an input data string

21   including a plurality of bits of binary data with a processing device communicatively coupled to

22   a memory having executable instructions stored therein which cause the device to implement a

23   method of encryption, the method comprising: receiving an input data string for encryption at the

24   processing device (See De Maine Col. 91 Lines 67-73); determining an order in which to query

25   the presence of each of 2^n different configurations of n bits within an input data string (See De

1   Maine Col. 91 Lines 67-74, 256 Byte Table); generating a code associated with the determined

2   order (See De Maine Col. 92 Lines 5-10, Type 2 codes); generating a position code by

3   identifying the positions of each of the 2^n different configurations of n bits in an input data string

4   in accordance with the determined order (See De Maine Col. 92 Lines 31-39, Bit Map); and

5   combining the control code and the position code to form an encrypted data string (See De

6   Maine Col. 92 Lines 40-44), however, De Maine did not specifically disclose providing a control

7   code index that is defined prior to receiving the input data string for encryption at the processor,

8   the control code index including a plurality of control codes wherein the values of the plurality of

9   control codes are independent of input data string specific characteristics, or generating a control

10   code using the control code index. De Maine further failed to disclose that the control code is

11   selected independent of specific characteristics of the input data string.

12   Cellier teaches that in a coding method, a table dictionary (control code index) including

13   a plurality of tables should be incorporated and table select (control code), for identifying which

14   table was used in the coding method, should be "generated" (chosen from the index) and

15   included with the encoded data (See Cellier Col. 4 Line 46 – Col. 5 Line 55 and Col. 13 Lines

16   24-33).

17   Witten teaches that in a compression system which uses frequency analysis to adapt to

18   the input text for optimal compression, an initial model, perhaps randomly generated, should be

19   used in order to secure the data being compressed from being decompressed without knowing the

20   initial model, or key (See Witten Section 7).

1   It would have been obvious to the ordinary person skilled in the art at the time of

2   invention to employ the teachings of Cellier in the coding system of De Maine by providing a

3   table dictionary including tables (See De Maine Col. 91 Lines 67-74) which are identified using

4   a table select (control code) and including the table select with the encoded data in order to allow

5   the decoder to identify which table was used for encoding. This would have been obvious

6   because the ordinary person skilled in the art would have been motivated to provide a highly

7   efficient and compact way of mapping the statistics of the input string in order to identify the

8   encoding table. It further would have been obvious to the ordinary person skilled in the art at the

9   time of invention to employ the teachings of Witten in the system of De Maine by randomly

10   choosing the byte table. This would have been obvious because the ordinary person skilled in

11   the art would have been motivated to secure the compressed data against illicit decompression.

12   In this combination it would be obvious, based on logical reasoning, that the table select would

13   be chosen to identify the randomly generated table in the dictionary.

14   Regarding claim 21, De Maine disclosed a method for encrypting an input data string

15   including a plurality of bits of binary data (See De Maine Col. 2 Paragraph 1), the method

16   comprising: receiving an input data string for encryption (See De Maine Col. 91 Lines 67-74);

17   determining an order in which to query the presence of each of 2^n different configurations of n

18   bits within an input data string (See De Maine Col. 91 Lines 67-74, 256 Byte Table); generating

19   a code associated with the determined order (See De Maine Col. 92 Lines 5-10, Type 2 codes);

20   generating a position code by identifying the positions of each of the 2^n different configurations

21   of n bits in an input data string in accordance with the determined order (See De Maine Col. 92

22   Lines 31-39, Bit Map); and combining the control code and the position code to form an

1   encrypted data string (See De Maine Col. 92 Lines 40-44), however, De Maine did not

2   specifically disclose providing a control code index that is defined prior to receiving the input

3   data string for encryption at the processor, the control code index including a plurality of control

4   codes wherein the values of the plurality of control codes are independent of input data string

5   specific characteristics, or generating a control code using the control code index. De Maine

6   further failed to disclose that the control code is selected independent of specific characteristics

7   of the input data string.

8   Cellier teaches that in a coding method, a table dictionary (control code index) including

9   a plurality of tables should be incorporated and table select (control code), for identifying which

10   table was used in the coding method, should be "generated" (chosen from the index) and

11   included with the encoded data (See Cellier Col. 4 Line 46 – Col. 5 Line 55 and Col. 13 Lines

12   24-33).

13   Witten teaches that in a compression system which uses frequency analysis to adapt to

14   the input text for optimal compression, an initial model, perhaps randomly generated, should be

15   used in order to secure the data being compressed from being decompressed without knowing the

16   initial model, or key (See Witten Section 7).

17   It would have been obvious to the ordinary person skilled in the art at the time of

18   invention to employ the teachings of Cellier in the coding system of De Maine by providing a

19   table dictionary including tables (See De Maine Col. 91 Lines 67-74) which are identified using

20   a table select (control code) and including the table select with the encoded data in order to allow

21   the decoder to identify which table was used for encoding. This would have been obvious

1   because the ordinary person skilled in the art would have been motivated to provide a highly

2   efficient and compact way of mapping the statistics of the input string in order to identify the

3   encoding table. It further would have been obvious to the ordinary person skilled in the art at the

4   time of invention to employ the teachings of Witten in the system of De Maine by randomly

5   choosing the byte table. This would have been obvious because the ordinary person skilled in

6   the art would have been motivated to secure the compressed data against illicit decompression.

7   In this combination it would be obvious, based on logical reasoning, that the table select would

8   be chosen to identify the randomly generated table in the dictionary.

9   Regarding claim 23, De Maine disclosed a computer readable medium including

10   computer program instructions that cause a computer to implement a method of encrypting an

11   input data string, including a plurality of bits of binary data (See De Maine Col. 2 Paragraph 1),

12   the method comprising: receiving an input data string for encryption (See De Maine Col. 91

13   Lines 67-74); determining an order in which to query the presence of each of 2^n different

14   configurations of n bits within an input data string (See De Maine Col. 91 Lines 67-74, 256 Byte

15   Table); generating a code associated with the determined order (See De Maine Col. 92 Lines 5-

16   10, Type 2 codes); generating a position code by identifying the positions of each of the 2^n

17   different configurations of n bits in an input data string in accordance with the determined order

18   (See De Maine Col. 92 Lines 31-39, Bit Map); and combining the control code and the position

19   code to form an encrypted data string (See De Maine Col. 92 Lines 40-44), however, De Maine

20   did not specifically disclose providing a control code index that is defined prior to receiving the

21   input data string for encryption at the processor, the control code index including a plurality of

22   control codes wherein the values of the plurality of control codes are independent of input data

1   string specific characteristics, or generating a control code using the control code index. De

2   Maine further failed to disclose that the control code is selected independent of specific

3   characteristics of the input data string.

4   Cellier teaches that in a coding method, a table dictionary (control code index) including

5   a plurality of tables should be incorporated and table select (control code), for identifying which

6   table was used in the coding method, should be "generated" (chosen from the index) and

7   included with the encoded data (See Cellier Col. 4 Line 46 – Col. 5 Line 55 and Col. 13 Lines

8   24-33).

9   Witten teaches that in a compression system which uses frequency analysis to adapt to

10   the input text for optimal compression, an initial model, perhaps randomly generated, should be

11   used in order to secure the data being compressed from being decompressed without knowing the

12   initial model, or key (See Witten Section 7).

13   It would have been obvious to the ordinary person skilled in the art at the time of

14   invention to employ the teachings of Cellier in the coding system of De Maine by providing a

15   table dictionary including tables (See De Maine Col. 91 Lines 67-74) which are identified using

16   a table select (control code) and including the table select with the encoded data in order to allow

17   the decoder to identify which table was used for encoding. This would have been obvious

18   because the ordinary person skilled in the art would have been motivated to provide a highly

19   efficient and compact way of mapping the statistics of the input string in order to identify the

20   encoding table. It further would have been obvious to the ordinary person skilled in the art at the

21   time of invention to employ the teachings of Witten in the system of De Maine by randomly

1   choosing the byte table. This would have been obvious because the ordinary person skilled in

2   the art would have been motivated to secure the compressed data against illicit decompression.

3   In this combination it would be obvious, based on logical reasoning, that the table select would

4   be chosen to identify the randomly generated table in the dictionary.

5   Regarding claim 62, De Maine disclosed an electronic device for encrypting an input data

6   string, including a plurality of bits of binary data, comprising: a processor configured to receive

7   an input data string for encryption (See De Maine Col. 91 Lines 67-73); determining upon

8   reception of the input data string, an order in which to query the presence of each of two 2n

9   different configurations of n bits within an input data string (See De Maine Col. 91 Lines 67-74,

10   256 Byte Table), and generates a code associated with the determined order (See De Maine Col.

11   92 Lines 5-10, Type 2 codes), the processor generating a position code, through the identification

12   of positions of each of the two 2n different configurations of n bits in the input data string in

13   accordance with the determined order (See De Maine Col. 92 Lines 31-39, Bit Map) to combine

14   the control code and the position code to form an encrypted data string (See De Maine Col. 92

15   Lines 40-44), however, De Maine did not specifically disclose providing a control code index

16   that is defined prior to receiving the input data string for encryption at the processor, the control

17   code index including a plurality of control codes wherein the values of the plurality of control

18   codes are independent of input data string specific characteristics, or generating a control code

19   using the control code index. De Maine further failed to disclose that the control code is selected

20   independent of specific characteristics of the input data string.

1   Cellier teaches that in a coding method, a table dictionary (control code index) including

2   a plurality of tables should be incorporated and table select (control code), for identifying which

3   table was used in the coding method, should be "generated" (chosen from the index) and

4   included with the encoded data (See Cellier Col. 4 Line 46 – Col. 5 Line 55 and Col. 13 Lines

5   24-33).

6   Witten teaches that in a compression system which uses frequency analysis to adapt to

7   the input text for optimal compression, an initial model, perhaps randomly generated, should be

8   used in order to secure the data being compressed from being decompressed without knowing the

9   initial model, or key (See Witten Section 7).

10   It would have been obvious to the ordinary person skilled in the art at the time of

11 invention to employ the teachings of Cellier in the coding system of De Maine by providing a

12 table dictionary including tables (See De Maine Col. 91 Lines 67-74) which are identified using

13 a table select (control code) and including the table select with the encoded data in order to allow

14 the decoder to identify which table was used for encoding. This would have been obvious

15 because the ordinary person skilled in the art would have been motivated to provide a highly

16 efficient and compact way of mapping the statistics of the input string in order to identify the

17 encoding table. It further would have been obvious to the ordinary person skilled in the art at the

18 time of invention to employ the teachings of Witten in the system of De Maine by randomly

19 choosing the byte table. This would have been obvious because the ordinary person skilled in

20 the art would have been motivated to secure the compressed data against illicit decompression.

21 In this combination it would be obvious, based on logical reasoning, that the table select would

22 be chosen to identify the randomly generated table in the dictionary.

1   Regarding claims 3 and 25, De Maine, Cellier, and Witten disclosed determining an order

2 comprises selecting a predetermined order (See De Maine Col. 91, 256 Byte Table and the

3 rejection of claim 1 above).

4   Regarding claims 5, 22, and 26, De Maine, Cellier, and Witten disclosed dividing the

5 input data string into a plurality of blocks of data (See De Maine Col. 92 Lines 31-38).

6   Regarding claim 8, and 30, De Maine, Cellier, and Witten disclosed generating a plurality

7 of block codes associated with a plurality of blocks of data, each block code indicating the

8 number of bits within the associated block of data (See De Maine Col. 101 Lines 45-52).

9   Regarding claim 9, and 31, De Maine, Cellier, and Witten disclosed combining the each

10 of the plurality of block codes with the control code and the position code for the associated

11 block of data (See De Maine Col. 101 Lines 45-52 and the rejection of claim 1 above).

12   Regarding claim 10, and 32, De Maine, Cellier, and Witten disclosed that determining an

13 order comprises determining an order based on the frequencies of the 2^n combinations of the n

14 bits of the input data string (See De Maine Col. 101 Lines 20-25).

15   Regarding claims 29, and 50, De Maine, Cellier, and Witten disclosed that the computer

16 readable code for determining an order further comprises computer readable code for

17 determining a first order associated with a first block of data and determining a second order

18 associated with a second block of data wherein the first order is different than the second order

19 (See De Maine Col. 91 Lines 67-74).

1   Regarding claim 33, De Maine, Cellier, and Witten disclosed that the computer readable

2   code for determining an order further comprises computer readable code for determining an

3   order in which to query the presence of each of 2^n different configurations of n bits based on an

4   analysis of the input data (See De Maine Col. 91 Lines 67-74).

5   Regarding claims 34 and 48, De Maine, Cellier, and Witten disclosed generating the

6   control code randomly (See the rejection of claim 1 above and Witten Section 7).

7.

8   Regarding claims 35, and 49, De Maine, Cellier, and Witten disclosed generating the

9   control code based on a rule set (See the rejection of claim 1 above and Witten Section 7).

10   Regarding claims 36 and 51, De Maine, Cellier, and Witten disclosed determining

11 whether the input data string can be compressed simultaneously as it is encrypted (See De Maine

12 Col. 101 Lines 20-28).

13   Regarding claims 37 and 52, De Maine, Cellier, and Witten disclosed dividing the input

14 data string into n bit sequences (See De Maine Col. 91 Lines 67-74); comparing each of the 2^n

15 different configurations of n bits with each of the n bit sequences (See De Maine Col. 91 Lines

16 67-74); determining the frequency of each of the 2^n different configurations appearing in the

17 input data string (See De Maine Col. 91 Lines 67-74); determining whether a specific

18 relationship exists between values of the frequencies of each of the individual 2^n different

19 configurations appearing in the input date string wherein the existence of the specific

20 relationship is indicative of the presence of a characteristic within the input data string and

21 wherein the presence of the characteristic indicates that the input data string can be compressed

1   simultaneously as it is encrypted (See De Maine Col. 101 Lines 20-25); selecting a first position

2   code routine associated with the determined order when the specific relationship exists, the first

3   position code being operable to encrypt and compress the input data string (See De Maine Col.

4   101 Lines 20-25 and Col. 92 Paragraphs 1-2); and selecting a second position code routine

5   associated with the determined order when the specific relationship does not exist, the second

6   position code being operable to encrypt the input data string without any compression (See De

7   Maine Col. 101 Lines 20-25 and Col. 92 Paragraphs 1-2).

8   Regarding claims 38 and 53, De Maine, Cellier, and Witten disclosed that the

9   determining the order in which to query the presence of each of 2^n different configurations of n

10   bits within an input data string comprises computer readable code for determining the order in

11   which to query the presence of each of 2^2 different configurations of 2 bits within an input data

12   string (See De Maine Col. 91 Lines 47-48).

13   Regarding claims 39 and 54, De Maine, Cellier, and Witten disclosed dividing the input

14   data string into n bit sequences (See De Maine Col. 91 Lines 67-74); comparing each of the 2^n

15   different configuration of n bits with each of the n bit sequences of the input data string (See De

16   Maine Col. 91 Lines 67-74); determining a first number representative of the number of times

17   the most frequently occurring 2^n configuration appears in the input string; determining a second

18   number representative of the number of times the second most frequently occurring 2^n

19   configuration appears in the input string; determining a third number representative of the

20   number of times the third most frequently occurring 2^n configuration appears in the input string

21   determining a fourth number representative of the number of times the fourth most frequently

1   occurring 2^n configuration appears in the input string (See De Maine Col. 91 Lines 67-74);

2   selecting a first position code routine associated with the determined order when the first number

3   is greater than the sum of the third number and the fourth number, the first position code routine

4   being operable to encrypt and compress the input data string (See De Maine Col. 92 Paragraphs

5   1-2 and Col. 101 Lines 20-27); and selecting a second position code routine associated with the

6   determined order when the first number is not greater than the sum of the third number and the

7   fourth number, the second position code routine being operable to encrypt the input data string

8   without any compression (See De Maine Col. 92 Paragraphs 1-2 and Col. 101 Lines 20-27).

9   Regarding claims 40 and 55, De Maine, Cellier, and Witten disclosed that generating a

10   control code associated with the determined order, further comprises: generating a first control

11   code associated with the determined order when the first position code routine is selected; and

12   generating a second control code associated with the determined order when the second position

13   code routine is selected wherein the first control code is different than the second control code

14   (See De Maine Col. 92 Paragraphs 1-2).

15   Regarding claims 44 and 59, De Maine, Cellier, and Witten disclosed selecting a default

16   order (See De Maine Col. 91 Lines 67-74 and the rejection of claim 1 above).

17   Regarding claims 45-46 and 60-61, De Maine, Cellier, and Witten disclosed determining

18   an order based on the relative frequencies of the combinations of n bits (See De Maine Col. 91

19   Lines 67-74).

20   Regarding claim 47, De Maine, Cellier, and Witten disclosed determining the order based

21   on an analysis of the input data string (See De Maine Col. 91 Lines 67-74).

1

2   Claims 6-7, and 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over De

3 Maine, Cellier, and Witten as applied to claims 5, and 26 respectively, and further in view of

4 Shimizu et al. (US Patent Number 6,772,343) hereinafter referred to as Shimizu.

5   De Maine, Cellier, and Witten disclosed blocking the input data into block sizes of a

6 certain range (See De Maine Col. 92 Lines 31-38) but failed to disclose determining the size of

7 the blocks randomly or according to a rule set.

8   Shimizu teaches that in a block encoding system, generating each block size randomly

9 makes illicit access of the data more difficult and makes the cryptosystem more robust (See

10 Shimizu Col. 5 Lines 9-18). Shimizu further teaches that the random sizes are generated

11 mathematically using a seed (See Shimizu Col. 15 Paragraphs 3-7).

12   It would have been obvious to the ordinary person skilled in the art at the time of

13 invention to employ the teachings of Shimizu in the invention of De Maine, Cellier, and Witten

14 to mathematically generate random block lengths. This would have been obvious because the

15 ordinary person skilled in the art would have been motivated to provide the added security of

16 random block lengths to the compressed data.

17

18   Claims 41-42, and 56-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over

19 De Maine, Cellier, and Witten as applied to claim 1 above, and further in view of Weiss (US

20 Patent Number 5,479,512).

21   De Maine, Cellier, and Witten disclosed compressing input data (See De Maine Cols. 91-

22 92), but failed to disclose re-encrypting the data after the compression was performed.

1   Weiss teaches that after compression is performed, the compressed data should be

2   XORed with a key, in small blocks at a time (See Weiss Col. 5 Paragraphs 4-5 and Col. 6

3   Paragraph 3 and Fig. 3A).

4   It would have been obvious to the ordinary person skilled in the art at the time of

5   invention to employ the teachings of Weiss in the compression system of De Maine, Cellier, and

6   Witten by XORing the coded data with a key in small blocks at a time. This would have been

7   obvious because the ordinary person skilled in the art would have been motivated to protect the

8   data from unauthorized observing.

9   Claims 41, 43, 56, and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over

10   De Maine, Cellier, and Witten as applied to claim 1 above, and further in view of Butler et al.

11   (US Patent Number 5,861,887) hereinafter referred to as Butler.

12   De Maine, Cellier, and Witten disclosed compressing input data (See De Maine Cols. 91-

13   92), but failed to disclose re-encrypting the data after compression was performed.

14   Butler teaches that compression should be repeated as many times as necessary in order

15   to make the data being compressed sufficiently small (See Butler Col. 3 Paragraph 2).

16   It would have been obvious to the ordinary person skilled in the art at the time of

17   invention to employ the teachings of Butler in the compression system of De Maine, Cellier, and

18   Witten by repeating the compression on the coded output as many times as necessary to get the

19   output to be sufficiently small. This would have been obvious because the ordinary person

20   skilled in the art would have been motivated to provide more efficient storage of the audio data.

21

22

1   *Conclusion*

2   Claims 1, 3, 5-10, 21-23, and 25-62 have been rejected.

3   Any inquiry concerning this communication or earlier communications from the

4   examiner should be directed to Matthew T. Henning whose telephone number is (571) 272-3790.
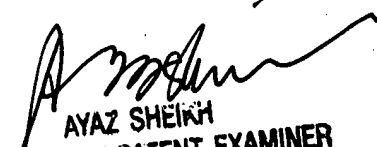
5   The examiner can normally be reached on M-F 8-4.

6   If attempts to reach the examiner by telephone are unsuccessful, the examiner's

7   supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the

8   organization where this application or proceeding is assigned is 571-273-8300.

9   Information regarding the status of an application may be obtained from the Patent

10   Application Information Retrieval (PAIR) system. Status information for published applications

11   may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

12   applications is available through Private PAIR only. For more information about the PAIR

13   system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

14   system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

15   like assistance from a USPTO Customer Service Representative or access to the automated

16   information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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27   1/10/2007